



#4

1

SEQUENCE LISTING

<110> SONG, WEN-YUAN
PI, LI-YA

<120> UBIQUITIN LIGASE

<130> 5853-173

<140> 09/896,720

<141> 2001-06-29

<150> 60/215,049

<151> 2000-06-29

<160> 24

<170> PatentIn Ver. 2.1

<210> 1

<211> 1353

<212> DNA

<213> Oryza sativa

<400> 1

```
atgggtcacg gtgtcagctg cgcccgccacc ggcgacgagc acgacttctt ccgggcgggcg 60
cagctcggcg acctcgacgc cctggccgcc ctctcgcgcg ccgacccttc cctcgcctgc 120
cgcgccaccc tctacgaccg cctctccgct ctccacatcg ccgcccgaag tggccgcac 180
gaggtgctct ccatgttctt ggatcgcggg gcgcgcgcgg acgcgggtgaa tcggcacaag 240
cagacgcccgc tgatgctcgc ggccatgcac ggcaagatcg actgctgtgt caagctcctc 300
caggccgacg caaatatctt gatgttcgac tcggtgcacg cgaggacctg cctccaccac 360
gcggcgtaact acggccacgt cgactgcttg caggccatcc tcgcccgcgc gcagaccacg 420
ccggtggccg actcatgggg ttctgcccgg ttctgcaacg tcagggacga ccacggcgcc 480
actcgcgtgc atctcgcggc caggcagggg cggccggggg gcgtgcaggt gttgctggag 540
aacggcgcca ttgtgtcggc ttgacagga tcatatggct tccctggaag cacgtcgctt 600
catttggtcg ctctgtagcg gaacttggat tgcacagga agctgcttgc ctggggagct 660
gatcggtctc aaagggtatc ggctgggaga attccctatt ctgttgctgt gaaacggaac 720
catggagcat gtgcagcttt gctgaaccct acatcagcag agcccatggt gtggccatcc 780
ccacttaagt tcatcagtga gcttgaacca gaagctaagg ctctcctgga agcagctctg 840
atggaagcca acagggagag ggagaagaaa atcctgaatg gcacaaagta ctccctgcca 900
tccccttcgc ccggtgatga cagtgcgcgt gacgatgcgt gctcagaggt gagcgacacg 960
gagctttgct gcatctgctt cgaccaggct tgcaccattg aggtgcaaga ctgtggacat 1020
caaatgtgtg caccgtgcac gctggcactg tgctgtcaca acaaaccgaa tccgacgacc 1080
ctgacaccgc cctcaccggc ctgcccattc tgccgggggca gcatctcacg gctgggtggtg 1140
gccccaaaca ggtctgcttg tgatcctgac aagccgtcat ccctgcagct caccgggaag 1200
cggtcgcgtc gatctcaca cctcagtgag ggcagcagca gcttcaaagg gctaccttcg 1260
gccatgggct ccttctcaaa gcttgccggt ggctcgagcc gcatggcgga cagtgcacgc 1320
agcaacctgg acaagcctga gcacgatcta tga 1353
```

<210> 2

<211> 450

<212> PRT

<213> Oryza sativa

<220>

<221> MOD_RES

<222> (258)

<223> Any amino acid

<400> 2

Met	Gly	His	Gly	Val	Ser	Cys	Ala	Arg	Thr	Gly	Asp	Glu	His	Asp	Phe	1	5	10	15
Phe	Arg	Ala	Ala	His	Leu	Gly	Asp	Leu	Asp	Ala	Leu	Ala	Ala	Leu	Leu	20	25	30	
Ala	Ala	Asp	Pro	Ser	Leu	Ala	Arg	Arg	Ala	Thr	Leu	Tyr	Asp	Arg	Leu	35	40	45	
Ser	Val	Leu	His	Ile	Ala	Ala	Ala	Asn	Gly	Arg	Ile	Glu	Val	Leu	Ser	50	55	60	
Met	Phe	Leu	Asp	Arg	Gly	Ala	Pro	Pro	Asp	Ala	Val	Asn	Arg	His	Lys	65	70	75	80
Gln	Thr	Pro	Leu	Met	Leu	Ala	Ala	Met	His	Gly	Lys	Ile	Asp	Cys	Val	85	90	95	
Leu	Lys	Leu	Leu	Gln	Ala	Asp	Ala	Asn	Ile	Leu	Met	Phe	Asp	Ser	Val	100	105	110	
His	Ala	Arg	Thr	Cys	Leu	His	His	Ala	Ala	Tyr	Tyr	Gly	His	Val	Asp	115	120	125	
Cys	Leu	Gln	Ala	Ile	Leu	Ala	Ala	Ala	Gln	Thr	Thr	Pro	Val	Ala	Asp	130	135	140	
Ser	Trp	Gly	Phe	Ala	Arg	Phe	Val	Asn	Val	Arg	Asp	Asp	His	Gly	Ala	145	150	155	160
Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Gln	Gly	Arg	Pro	Gly	Cys	Val	Gln	165	170	175	
Val	Leu	Leu	Glu	Asn	Gly	Ala	Ile	Val	Ser	Ala	Leu	Thr	Gly	Ser	Tyr	180	185	190	
Gly	Phe	Pro	Gly	Ser	Thr	Ser	Leu	His	Leu	Ala	Ala	Arg	Ser	Gly	Asn	195	200	205	
Leu	Asp	Cys	Ile	Arg	Lys	Leu	Leu	Ala	Trp	Gly	Ala	Asp	Arg	Leu	Gln	210	215	220	
Arg	Asp	Ser	Ala	Gly	Arg	Ile	Pro	Tyr	Ser	Val	Ala	Leu	Lys	Arg	Asn	225	230	235	240
His	Gly	Ala	Cys	Ala	Ala	Leu	Leu	Asn	Pro	Thr	Ser	Ala	Glu	Pro	Met	245	250	255	
Val	Xaa	Pro	Ser	Pro	Leu	Lys	Phe	Ile	Ser	Glu	Leu	Glu	Pro	Glu	Ala	260	265	270	

Lys Ala Leu Leu Glu Ala Ala Leu Met Glu Ala Asn Arg Glu Arg Glu
 275 280 285
 Lys Lys Ile Leu Asn Gly Thr Lys Tyr Ser Leu Pro Ser Pro Ser Pro
 290 295 300
 Gly Asp Asp Ser Ala Asp Asp Asp Ala Cys Ser Glu Val Ser Asp Thr
 305 310 315 320
 Glu Leu Cys Cys Ile Cys Phe Asp Gln Ala Cys Thr Ile Glu Val Gln
 325 330 335
 Asp Cys Gly His Gln Met Cys Ala Pro Cys Thr Leu Ala Leu Cys Cys
 340 345 350
 His Asn Lys Pro Asn Pro Thr Thr Leu Thr Pro Pro Ser Pro Ala Cys
 355 360 365
 Pro Phe Cys Arg Gly Ser Ile Ser Arg Leu Val Val Ala Gln Thr Arg
 370 375 380
 Ser Ala Cys Asp Pro Asp Lys Pro Ser Ser Leu Gln Leu Thr Arg Lys
 385 390 395 400
 Arg Ser Arg Arg Ser His Asn Leu Ser Glu Gly Ser Ser Ser Phe Lys
 405 410 415
 Gly Leu Pro Ser Ala Met Gly Ser Phe Ser Lys Leu Gly Arg Gly Ser
 420 425 430
 Ser Arg Met Ala Asp Ser Asp Ser Ser Asn Leu Asp Lys Pro Glu His
 435 440 445
 Asp Leu
 450

<210> 3
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 3
 gtcgaccaga tctcataaga gaagaaaga

29

<210> 4
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 4
gtcgcacgaat gaaatcagtt gtgaagggtta c 31

<210> 5
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 5
ggatccgctcg accacaagag aactaaaaag ggagc 35

<210> 6
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 6
ggatccgctcg accccgggca gaagtcgata tgaagtgtgg ca 42

<210> 7
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 7
ggatccatga tatccatggg tcacggtgta 30

<210> 8
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 8
cgggatccga tatcagatgc agcaaagctc c 31

<210> 9
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 9
 ggatccgcac aagagaacta aaaagggagc 30

<210> 10
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 10
 cagaagtcga tctgaagtgt ggca 24

<210> 11
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 11
 ggatccatga tatccgatgc atgctcagag 30

<210> 12
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 12
 ggatccatga tatcgaggat gatgcggcga 30

<210> 13
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 13
 gaattctcta gaccggggca gcatctca 28

<210> 14
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 14
 actagtggat cttttctgat accaacgga 29

<210> 15
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 15
 gaattcagat ctccggggca gcatctca 28

<210> 16
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 16
 actagtgata tctttctgat accaacgga 29

<210> 17
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 17
 gaattcgcgc tgctctc 17

<210> 18
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 18
 ggtgcatgct ccaatgg 17

<210> 19
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 19
 gcgctgaaac ggaaccatgg a 21

<210> 20
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 20
 gcttctgggt caagctcact ga 22

<210> 21
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 21
 tgtgcagctt tgctgaaccc tacatca 27

<210> 22
 <211> 50
 <212> PRT
 <213> Oryza sativa

<400> 22
 Cys Cys Ile Cys Phe Asp Gln Ala Cys Thr Ile Glu Val Gln Asp Cys
 1 5 10 15

Gly His Gln Met Cys Ala Pro Cys Thr Leu Ala Leu Cys Cys His Asn
 20 25 30

Lys Pro Asn Pro Thr Thr Leu Thr Pro Pro Ser Pro Ala Cys Pro Phe
 35 40 45

Cys Arg
 50

<210> 23
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 23
 Cys Lys Ile Cys Ala Glu Asn Asp Lys Asp Val Lys Ile Glu Pro Cys
 1 5 10 15
 Gly His Leu Met Cys Thr Ser Cys Leu Thr Ser Trp Gln Glu Ser Glu
 20 25 30
 Gly Gln Gly Cys Pro Phe Cys Arg
 35 40

<210> 24
 <211> 36
 <212> PRT
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: Baculovirus
 inhibitor of apoptosis

<400> 24
 Cys Lys Ile Cys Tyr Val Glu Glu Cys Ile Val Cys Phe Val Pro Cys
 1 5 10 15
 Gly His Val Val Ala Cys Ala Lys Cys Ala Leu Ser Val Asp Lys Cys
 20 25 30
 Pro Met Cys Arg
 35